

Optical thin film



We help ideas meet the real world

We make optical thin film components



Located in Hørsholm, Denmark, DELTA has since the 1960's been the pioneer in computer designed optical coatings. In the 1980's DELTA was among the first to implement automatic computer controlled deposition of advanced optical coatings. We help the world's leading manufacturers of analytical and biomedical instruments to set new standards.

Why optical filters from DELTA?

Our thin film components are ultra hard coated single glass constructions, offering very high mechanical and spectral stability, low autofluorescence and minimal optical deflection.

The coatings are shift free in most environmental conditions and can be made on coloured or uncoloured glass as desired.

Our design and manufacturing methods result in coatings with very high transmission, steep edges and deep broad-banded blocking.

Our dichroics can be designed with minimal bending. All components can easily be diamond tooled to required dimensions.

Working with DELTA

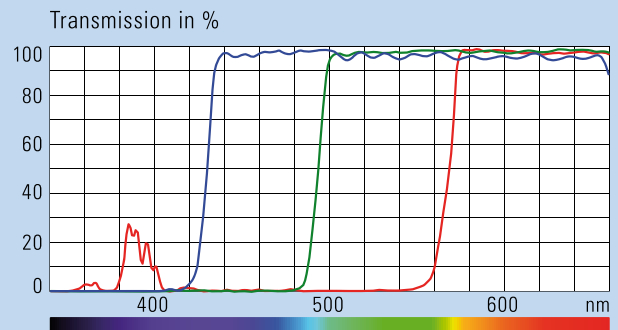
Utilising our proprietary design and optimisation software, DELTA's development team will quickly be able to turn your specific optical requirement into an optical coating that can be produced repeatedly according to your specifications.

Once a design has been agreed on, our manufacturing team is able to produce the filter in high volumes and at competitive prices. All coatings are thoroughly tested before delivery.

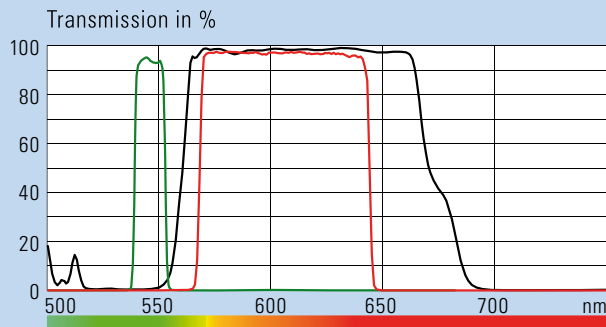
Contact DELTA to find out how we can help your product meet the requirements of the real world.

Product examples

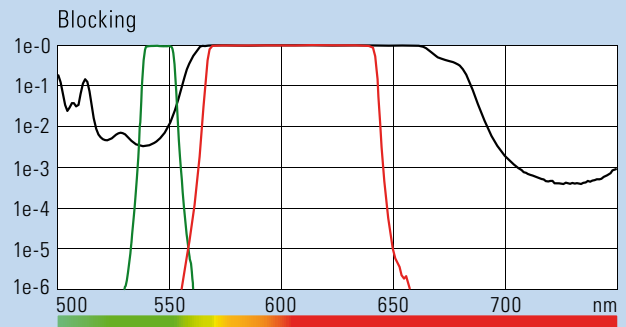
The figure to the right shows transmission for a set of three beam combiners used for a microscope light source for multi-band excitation. It is also possible to use these ultra hard coated dichroics as colour beam-splitters. Dichroics from DELTA can be delivered with stress compensation as required. The figures below show transmission and blocking of a TopPride™ fluorescence filter set for Rhodamin.



Measured transmission of a set of light source combiners for 45 degrees of incidence.



Measured transmission and blocking for a TopPride™ high quality fluorescence microscopy filter set for Rhodamin. The filter set is implemented on single substrates without using coloured glass.



DELTA's TopPride™ range of fluorescence filter sets represent the utmost in high transmission, steep edges and highly broad-banded blocking.

Our products vary from custom designed solutions to a broad range of filters, filter sets, cubes, splitters and mirrors.

Please visit www.delta.dk/filters for more information about our standard filter product range or contact us for an informal talk about your requirements.

Products offered

Over the years DELTA has delivered a broad range of standard and customised products:

- Single and multi-bandpass filters
- Beam splitters and beam combiners
- Dichroics
- Dielectric mirrors
- Laser line filters
- Long pass filters
- Short pass filters
- Multi-functional SMART coatings
- Single and multi notch filters
- Polarising beam-splitters and cubes
- RGB filters
- XYZ filters

Applications

DELTA's filters are found in leading medical and bioscience products throughout the world. Example applications include:

- Fluorescence microscopy
- Flow cytometry
- Raman spectroscopy
- Optical coherence tomography
- Biomedical laser systems
- Image transferring systems
- Colour separation systems



DELTA optical thin film is part of DELTA Light & Optics, a division of DELTA Danish Electronics, Light & Acoustics, involved in designing, manufacturing and testing of optical thin film components – primarily for the bioscience industry. DELTA's development and manufacturing functions are certified according to ISO 9001 and ISO 14001 by Bureau Veritas.



DELTA Light & Optics is also an OEM supplier of optical sensors and instrumentation and operates a nationally accredited lighting laboratory.

DELTA

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